CLAIMS

What is claimed is:

1. A method of forming a semiconductor-on-insulator structure, comprising the steps of:

   a) forming a structure having porous semiconductor material at a first surface thereof;

   b) introducing an oxidizing species into said porous semiconductor material; and, either before or after step b),

   c) forming an epitaxial semiconductor layer on said porous semiconductor material, and reacting said oxidizing species with said porous semiconductor material to form a buried dielectric layer beneath said epitaxial layer.

2. The method of Claim 1, wherein said oxidizing species consists essentially of oxygen.

3. The method of Claim 1, wherein said semiconductor layer consists essentially of silicon.

4. A method of forming a semiconductor-on-insulator structure, comprising the steps of:

a) anodizing a silicon wafer to form porous silicon;

b) introducing oxygen into said porous silicon; and, either before or after step b),

c) forming a semiconductor layer on said porous silicon, and reacting said oxygen with said porous semiconductor material to form a buried oxide layer.

5. The method of Claim 4, wherein said semiconductor layer consists essentially of silicon.

6. A method of forming a semiconductor-on-insulator structure, comprising the steps of:

a) partially anodizing a silicon wafer to form porous silicon; and thereafter

b) forming an epitaxial semiconductor layer on said porous silicon; and thereafter

c) introducing oxygen into said porous silicon, and reacting said oxygen with said porous silicon to form a buried oxide layer.

7. The method of Claim 6, wherein said oxidizing species consists essentially of oxygen.

8. The integrated circuit of Claim 6, wherein said semiconductor layer consists essentially of silicon.

9. A product made by the process of Claim 1.

10. A product made by the process of Claim 4.

11. A product made by the process of Claim 6.